



Contribution ID: 419

Type: **Parallel session talk**

Physics with W and Z bosons at the LHCb experiment

Wednesday 23 August 2023 08:50 (20 minutes)

Duration: 15'+5'

The LHCb experiment covers the forward region of proton-proton collisions, and it can study the W and Z bosons in this phase space complementary to ATLAS and CMS. Measurements of W and Z bosons production cross sections in this region are unique and important tests of the Standard Model.

Thanks to the excellent detector performance, fundamental parameters of the Standard Model can be precisely measured by studying the properties of the electroweak bosons.

Moreover the collected W and Z boson events, measured with or without the associated production of hadronic jets, can be used to probe the proton structure in a phase space region not accessible by other LHC experiments.

In this talk an overview of the wide LHCb measurement program with electroweak bosons will be presented, and prospects with future detector upgrades will be discussed.

Collaboration / Activity

LHCb

Primary author: GRIESER, Nathan Allen

Co-author: VOS, Keri

Presenter: GRIESER, Nathan Allen

Session Classification: T07 Top and Electroweak Physics

Track Classification: Top and Electroweak Physics